

Electronic Supplementary Information

Graphene-mediated surface enhanced Raman scattering in silica mesoporous nanocomposite films

Davide Carboni,¹ Barbara Lasio,¹ Valeria Alzari,² Alberto Mariani,² Danilo Loche,³ Maria Casula,³ Luca Malfatti¹ and Plinio Innocenzi^{1*}

¹*Laboratorio di Scienza dei Materiali e Nanotecnologie, CR-INSTM, DADU, Università di Sassari, Palazzo Pou Salid, Piazza Duomo 6, 07041 Alghero (SS), Italy*
²*Dipartimento di Chimica e Farmacia, Università di Sassari, Local INSTM Unit, Via Vienna 2, 07100 Sassari, Italy*
³*Dipartimento di Scienze Chimiche e Geologiche, Università di Cagliari, 09042 Monserrato (CA), Italy*

*Corresponding author: plinio@uniss.it

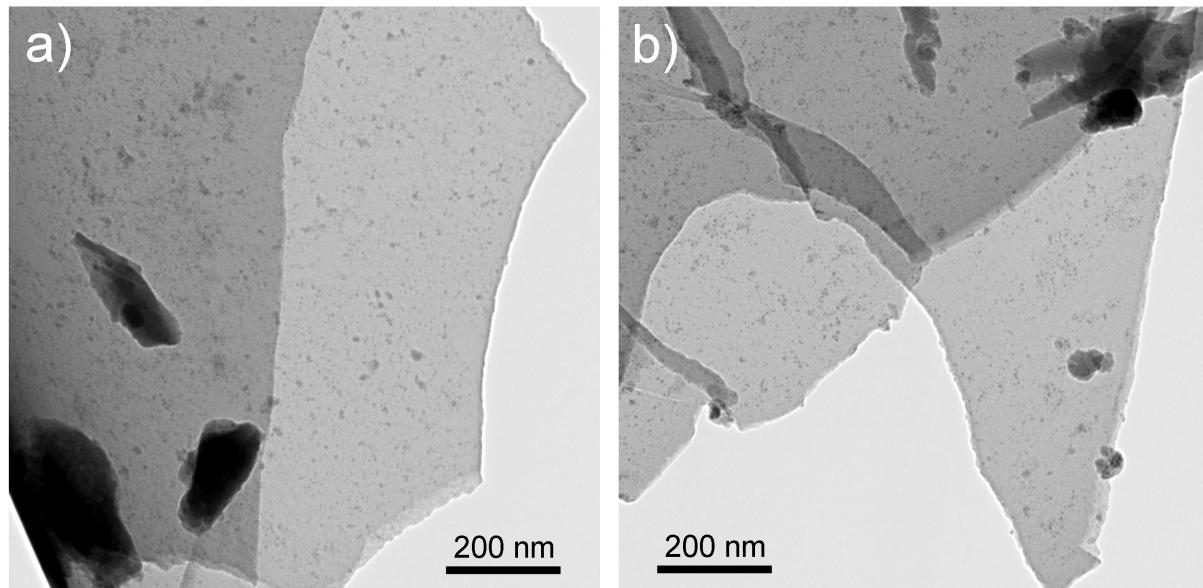


Figure S1.Bright field TEM images of graphene bi-layer with gold nanoparticles nucleated on the surface.

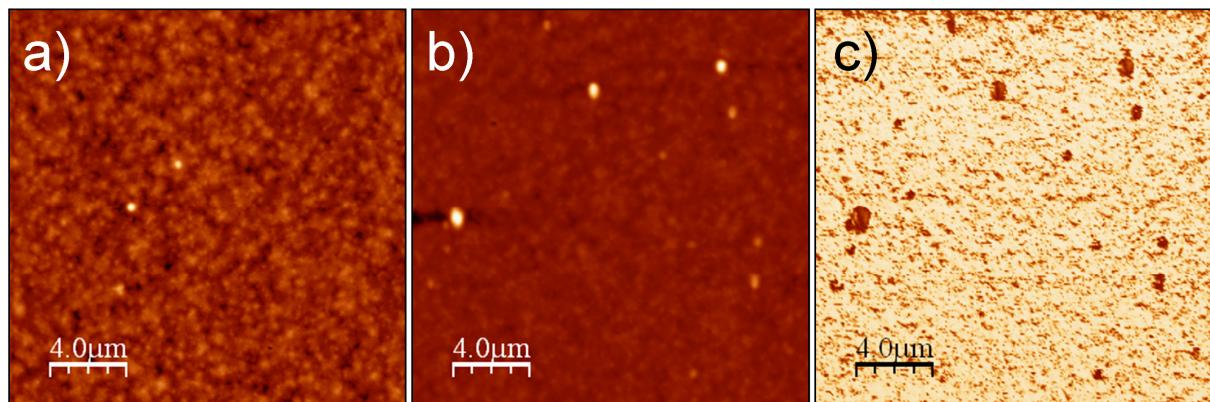


Figure S2. AFM images ($20 \times 20 \mu\text{m}$) of mesoporous nanocomposite films containing graphene thermally treated 2h at 350°C . **Fig. S2a** and **S2b** are topology images and **Fig. S2c** is a phase imaging AFM picture.